Chapter 1 Introduction

Sleeping Bear Dunes National Lakeshore (Lakeshore) was established by Public Law 91-479 on October 21, 1970. This Act states that: "Congress finds that certain outstanding natural features, including forests, beaches, dune formations, and ancient glacial phenomena, exist along the mainland shore of Lake Michigan and on certain nearby islands in Benzie and Leelanau Counties, Michigan."

Congress protected these outstanding natural features in perpetuity as a unit of the national park system, managed by the National Park Service (NPS). The Act further declared that these features should be: "preserved in their natural setting and protected from developments and uses which would destroy the scenic beauty and natural character of the area." To carry out this preservation and protection, Congress required the Secretary of the Interior to: "administer and protect the Sleeping Bear Dunes National Lakeshore in a manner which provides for recreational opportunities consistent with the maximum protection of the natural environment within the area."

The Lakeshore contains over 70,000 acres (28,00 hectares) of land and water, including two islands (North and South Manitou) a combined 20,000 acres (8,000 hectares) in size, about 11,000 acres (4,400 hectares) of Lake Michigan waters, as well as scenic beaches, dunes, beech/maple forests, lakes, and streams (Figure 1). The park's striking landforms were shaped by the vast glaciers that blanketed the area thousands of years ago during the Pleistocene Era, as well as by melt water from these glaciers and subsequent wind erosion. These landforms include the beaches, moraines, dunes, perched dunes, kettles, truncated headlands, drainage channels, embayment lakes, streams, bogs and springs. Each landform has its own characteristic vegetative cover and corresponding wildlife resources. Former land uses and resource exploitation or extraction, such as gravel pits, dumps, farming, logging, and grazing, have all impacted the park's landforms and vegetative cover.

Fauna of note that occur in the park include the endangered piping plover that nests on the beaches, the threatened bald eagle that both passes through and nests at the Lakeshore, and the upland sandpiper, which nests in open fields and is considered a rare species in Michigan. Other grassland-nesting birds include the Savannah sparrow, grasshopper sparrow, vesper sparrow and bobolink, which are in nationwide decline but are stable or increasing in the park because of the absence of agriculture and grazing and the open field management plan, which protects the habitat of meadow-dwelling wildlife. Prairie warblers, a Michigan threatened species, have excellent habitat in the pine/juniper vegetation behind the beaches. In addition, the park is used by ducks and geese that nest in the small lakes and ponds; it also provides habitat for owls and hawks, as well as for such mammals as badgers, river otters, fox, mink, flying squirrels and many others.

Sleeping Bear Dunes National Lakeshore contains rare orchids and ferns, a grove of giant white cedar trees on South Manitou Island, and an array of plants of special interest including the federally listed threatened Pitcher's thistle and endangered Michigan monkey-flower.



Figure 1 – Sleeping Bear Dunes National Lakeshore Vicinity Map

Among the popular pastimes for visitors to the Lakeshore are camping, hiking, sightseeing, swimming, beachcombing, boating, hunting, and fishing.

The Lakeshore's mission, purpose and significance statements reaffirm the park's understanding of Congress' intent in setting the area aside as a unit of the national park system. The most recent versions are:

Lakeshore Mission

Sleeping Bear Dunes National Lakeshore was



Figure 2 – View of Lake Michigan shoreline at Sleeping Bear Dunes National Lakeshore

established by an act of Congress and formed from lands purchased from private owners and from lands and water areas donated by the State of Michigan. The Lakeshore mission is to preserve outstanding natural features including forests, beaches, dunes and ancient glacial phenomena along 64 miles (100 km) of Lake Michigan shoreline, in order to perpetuate the natural setting for the benefit and enjoyment of the public, and to protect it from developments and inappropriate uses that would destroy its scenic beauty, scientific and recreational value. The Lakeshore provides the infrastructure necessary to access park resources, i.e. boating access, road and trail access and the facilities to support outdoor recreation, interpretation, education and other park uses, i.e. campgrounds, picnic areas, interpretive facilities, restrooms, etc. Included within the boundaries are inland lakes and rivers, glacial features such as ice block holes and moraines, and habitat necessary for the continued survival of threatened and endangered species such as the Pitcher's thistle and piping plover. Nearly fifty percent of the Lakeshore is recommended for designated or potential wilderness. Cultural resources include remnants of prehistoric American Indian use, logging, farming, maritime commerce and outdoor recreation.

<u>Lakeshore Purpose</u>

Preserve outstanding natural features including forests, beaches, dunes, and ancient glacial phenomena in order to perpetuate the natural setting for the benefit and enjoyment of the public, and to protect them from developments and inappropriate uses that would destroy their scenic beauty and recreational value.

Provide for public recreation, inspiration, and education consistent with protection and conservation of significant natural and cultural resources.

<u>Lakeshore Significance</u>

The National Lakeshore contains accessible and compactly grouped features of continental glaciation, and includes post glacial shoreline adjustment, wind formed dunes, and examples of plant succession.

The National Lakeshore area is one of the most scenic portions of the Lake Michigan shoreline, and, with its massive glacial headlands, diverse habitats, and superb water resources, offers a broad range of recreational and inspirational experiences.

The National Lakeshore's historic maritime and agricultural landscapes are of a size and quality that are unique on the Great Lakes and rare elsewhere on the U.S. coastline.

The National Lakeshore includes native flora and fauna important to the region, some of which are endangered, threatened, rare, or declining in the Great Lakes ecosystem.

1.1 PURPOSE AND NEED FOR FEDERAL ACTION

The purpose of implementing a Fire Management Plan (FMP) at Sleeping Bear Dunes National Lakeshore is to protect human life and property, both public and private, within and adjacent to NPS lands. The FMP is also intended to protect and preserve the natural and cultural resources of the Lakeshore for the enjoyment of present and future generations. This includes perpetuation of the ecosystem in which these resources occur. To help in achieving these long-term goals, the National Park Service has implemented a comprehensive fire management program. Actions within this program include, but are not limited to, fuel reduction, prescribed fire for resource benefit, and wildland fire suppression.

This Environmental Assessment (EA) addresses the proposed action to reduce fuel loads in Sleeping Bear Dunes National Lakeshore and at the interface of wildlands with adjacent developed areas. The northern, southern, and eastern boundaries of Sleeping Bear Dunes National Lakeshore are comprised of thick surface and aerial fuels, steep topography, and are subject to prevailing winds from the west and southwest. In addition to these factors that may lead to potentially extreme fire behavior, park boundaries are adjoined by numerous private properties that have houses located within 100 feet of the Lakeshore's boundary. The presence in and proximity to the Lakeshore of contemporary and historic development, and significant natural resources necessitates hazard fuel accumulations reduction inside the Lakeshore and along the boundary lines to prevent loss of life, damage to property, or harm to Lakeshore resources.

The purpose of this federal action is to protect park resources and surrounding lands from fire, while utilizing the benefits of fire to achieve desired natural and cultural resource conditions. This action would create buffer zones with low fuels availability between the Lakeshore wildlands and development inside and outside of the Lakeshore. The reduced volumes of fuel in the Lakeshore would reduce the intensity of a fire that originated outside of the Lakeshore as the fire approached the boundary and would increase firefighters' ability to gain control of a

wildland fire. The use of prescribed fires would also re-establish fire as an ecological process that would help to restore and maintain natural biotic systems and reduce exotic vegetation.

This EA documents the results of a study of the potential environmental impacts of an action proposed by the NPS to develop, approve, and implement an FMP for Sleeping Bear Dunes National Lakeshore.

This EA has been prepared in compliance with:

The National Environmental Policy Act (NEPA) of 1969 (42 United States Code (USC) 4321 et seq.), which requires an environmental analysis for major federal actions having the potential to impact the quality of the environment;

The Purpose of an Environmental Assessment (EA)

There are three primary purposes of an EA:

- To help determine whether the impact of a proposed action or alternative could be significant, in which case an environmental impact statement (EIS) is needed;
- To aid in compliance with NEPA when no EIS is necessary by evaluating a proposal that will have no significant impacts, but that may have measurable adverse impacts; and
- To facilitate preparation of an EIS if one is necessary.
- Council of Environmental Quality Regulations at 40 Code of Federal Regulations (CFR) 1500-1508, which implement the requirements of NEPA;
- National Park Service Conservation Planning, Environmental Impact Analysis, and Decision Making: Director's Order (DO) #12 and Handbook;
- National Historic Preservation Act, 1966 and as amended.

Two key goals of NEPA are to help federal agency officials make well-informed decisions about agency actions and to provide the general public with opportunities to provide input to the decision-making process both at the scoping and public review stages. The study and documentation mechanisms associated with NEPA seek to furnish decision-makers with sound knowledge of the comparative environmental consequences of the several courses of action available to them. NEPA studies, and the documents recording their results, such as this EA, focus on providing input to the particular decisions faced by the relevant officials.

In this case, the Superintendent of Sleeping Bear Dunes National Lakeshore is faced with a decision to approve a new Fire Management Plan, as described below. This decision will be made within the overall management framework already established in the Sleeping Bear Dunes National Lakeshore General Management Plan, approved in 1979 (SLBE, 1979). The alternative courses of action to be considered at this time are, unless otherwise noted, crafted to be consistent with the concepts established in the GMP as well as the park's Resource Management Plan (SLBE, 2000).

1.1.1 Need for Action

The need for action is that the National Park Service requires all park units with burnable vegetation to have a fire management plan. Sleeping Bear Dunes National Lakeshore has a draft FMP dating to 1989 (SLBE, 1989), but evolution in federal fire policy since that time necessitates a change in the park's FMP.

The 1995 Final Report of the Federal Wildland Fire Management Policy and Program Review provides guiding principles that are fundamental to the success of the federal wildland fire management program and implementation of review recommendations. These recommendations include Federal wildland fire policies in the areas of: safety, planning, wildland fire, prescribed fire, preparedness, suppression, prevention, protection priorities, interagency cooperation, standardization, economic efficiency, wildland/urban interface, and administration and employee roles. The 2001 Federal Fire Management Policy update addresses 17 distinct items, the foremost being safety; all FMPs and activities must reflect this commitment (NIFC, 2001).

The Federal Wildland Fire Management Policy that now governs wildland fire management provides for a full range of responses and the opportunity for wildland fires to be managed for resource benefits. This policy represents a significant departure from past fire management practices. All ignitions occurring in wildland areas are now classified as wildland fires or prescribed fires (NPS, 1998a). Wildland fires include any non-structure fire, other than prescribed fire, that occurs in the wildland, regardless of whether the origin is natural (generally lightning) or human (accident or arson). All wildland fires not naturally ignited as well as any

wildland fire not capable of supporting resource management goals and objectives will receive a suppression response. The term wildland fire encompasses fires previously called both wildfires and prescribed natural fires. Prescribed fires include any fire ignited by management actions to meet specific objectives. This term replaces managementignited prescribed fire. Prior to the ignition of prescribed fires, a written, approved prescribed fire plan must exist, and NEPA requirements must be met. This EA constitutes the requisite NEPA documentation and compliance for the FMP.

Prescribed fires are authorized by approved resource and fire management plans and contribute specifically to a park's resource management objectives. Wildland fires are managed with the Wildland fires are any non-structure fires, other than prescribed fires, that occur in the wildland. This term encompasses fires previously called both wildfires and prescribed natural fires.

Prescribed Fires are any fires ignited by management actions in defined areas under predetermined weather and fuel conditions to meet specific objectives.

Wildland fire use is the management of naturally ignited wildland fires to accomplish specific pre-stated resource management objectives in predefined geographic areas outlined in Fire Management Plans.

appropriate response as directed by the park's FMP and analysis of the specific situation. These fires can be managed entirely or in any part for resource benefits or receive suppression actions to minimize burned area due to high values to be protected, threats to life or property, or other social, political, and economic considerations that outweigh potential environmental benefits. A decision-making process is implemented that evaluates and compares alternative strategies with respect to safety, environmental, social, economic, political, and resource management objectives.

An approved FMP is required before a wildland fire management program can be fully implemented. The use of either prescribed fire or wildland fire or both for resource benefits is

expressly not permissible without an approved FMP. The Superintendent approves the FMP and implementation plans for all fire use activities.

There is a need at Sleeping Bear Dunes National Lakeshore for both hazard fuels reduction at the wildland-urban interface and for vegetation management, both of which can be accomplished by some combination of wildland fire use and prescribed fire. Before either of these can take place at the Lakeshore, it needs an approved FMP, which it does not at present have.

1.1.2 Purpose for Action

The purpose of this federal action is to protect park resources and surrounding lands from fire, while utilizing the benefits of fire to achieve desired natural and cultural resource conditions. NPS policy recommends an annual review of the FMP and a revision every five years.

The Proposed Action is development, approval and implementation of a long-range Wildland Fire Management Plan at Sleeping Bear Dunes National Lakeshore. The FMP includes goals under the general areas of preparedness and suppression, hazard fuels management, vegetation management, and public use and interpretation. This EA analyzes a range of reasonable long-range fire management program alternatives at the park and their direct, indirect and cumulative impacts. Three alternatives are analyzed in detail. The NPS-preferred alternative is #3 – Suppress all Wildland Fires on Mainland, Allow Wildland Fire Use on Manitou Islands, Permit Prescribed Fire. The preferred alternative utilizes two Fire Management Units (FMUs): 1) Island Unit, and 2) Mainland Unit.

1.2 OBJECTIVES OF FIRE MANAGEMENT AND PLANNING

The following statement from the 1993 Statement for Management provides guidance in planning a fire management program at the Lakeshore:

To identify, inventory, study, monitor, restore, and protect the natural flora, fauna, geological features, and the natural systems endemic to the area. Take preventive and corrective action for incidents harmful to these resources – such as fires not identified as "allowable" in fire management plans, establishment of an alien species, or spills of hazardous material. Participate in regional programs with neighboring agencies that share in the responsibilities for these resources to ensure that efficient, effective preservation programs are in place. Where consumptive uses are mandated, ensure that resource bases are not harmed.

In addition, the following guidance from the 2000 Resource Management Plan can be related directly to fire management.

1. <u>Problem Identification</u> – To identify and describe natural resource problems which need attention in order to preserve the natural character of the park.

- 2. <u>Solution Identification</u> Identification of alternative solutions for solving resource problems with an assessment of the potential impacts of the alternatives.
- 3. <u>Solution Requirements</u> A selection of alternatives and the requirements for solutions. Requirements may be for research, monitoring protection or management action and mitigation.
- 4. <u>Actions</u> Detailed management action plans that will describe procedures to accomplish resource management tasks.

The following goals, consistent with current Federal Wildland Fire Management Policy, have been developed for fire management and planning at the Lakeshore:

1. Preparedness and Suppression

- a. Public and firefighter safety is the highest priority of every fire management activity.
- b. Reduce the number of human-caused fires.
- c. Suppress all human caused wildland fires to protect private property and park resources including archeological, historic, cultural landscapes, vegetative, wildlife, and infrastructure.

2. Hazard Fuels Management

- a. Use appropriate methods of fuel management to reduce risk of fires in wildland-urban interface areas on the boundary and around inholdings/life estates.
- b. Reduce the potential for large wildland fires which could adversely affect private property and unit resources.
- c. Use mechanical means to reduce fuels in locations where fire use would adversely affect private property and unit resources.
- d. Apply prescribed fire to maintain cultural landscapes and maintain reduced fuel loads.

3. Vegetation Management

- a. Restore fire as an ecological disturbance process to appropriate vegetative communities.
- b. Encourage growth of beneficial forest understory species.
- c. Control exotic plant species.
- d. Control or mitigate insect and disease attacks by providing a healthy diversity of forest age classes.

4. Public Use/Interpretation

- a. Protect the visiting public and provide services traditionally found on the unit.
- b. Increase public awareness of the role of fire in natural processes through interpretation.

1.3 SCOPING ISSUES AND IMPACT TOPICS

NEPA requires federal agencies to invite public involvement prior to decision-making on proposed actions that may affect the environment. "Scoping" is the process of soliciting input from "stakeholders" – including NPS staff, the public, and other agencies – at the outset of a NEPA analysis. Not only may the information obtained from interested and knowledgeable parties be of value in and of itself, but the perspectives and opinions as to which issues matter the most, and how, indeed whether, the agency should proceed with a given proposed action are equally important. Input from scoping thus helps shape the direction that analysis takes and helps planners and analysts decide which issues merit consideration. Public input also helps in the development of alternatives to the proposed action, which is an integral part of NEPA.

The Lakeshore Natural Resource Management staff began scoping for the EA on updating the park's Wildland FMP on March 19, 2002, with a letter and news release (see Appendix D). The letter was mailed to approximately 60 addressees, including elected officials; federal, tribal, state and local government agencies; non-governmental organizations (NGOs), the news media, and park use and occupancy tenants. The news release went to about 30 news media outlets. The letter and news release requested comments on issues that should to be addressed in the new FMP and draft EA and suggestions on possible ways to manage the park's fire management program. Persons and parties interested in commenting in writing were requested to have their letters postmarked no later than April 22, 2002.

In addition, the news release and letter informed stakeholders that the Lakeshore would hold a scoping meeting open to the public on the evening of April 10, 2002 at the park visitor center in Empire, Michigan. This meeting was held on schedule and attended by approximately 25 members of the public, a reporter from the Traverse City *Record-Eagle*, and officials from the Michigan Department of Natural Resources (MDNR). A number of comments were made at the meeting and sent in afterwards. Also, a newspaper article appeared in the *Record-Eagle* (Smith, 2002).

Based on the above scoping meeting, newspaper article and comment letters, the following scoping issues have been identified and are considered in the EA:

- Endangering people/property from prescribed and wildland fires that escape control;
- Containment of fires within the narrow boundaries of the National Lakeshore;
- Reimbursement of firefighting costs to local fire departments by the NPS;
- Adequacy of NPS firefighting equipment;
- Need to consider alternative strategies for mechanical fuel reduction, such as permitting local residents to remove dead and down fuel for firewood;
- Effects on threatened and endangered species;
- Effects on historic properties.

1.4 SCOPING ISSUES CONSIDERED BUT NOT FURTHER EVALUATED

Scoping frequently raises issues that are considered by the lead federal agency, but determined not to be germane to the proposed action or its impacts or not to involve substantive impacts. With regard to the present EA, certain comments made during the scoping meeting or submitted later in written form expressed a common misconception as to the relationship between fire suppression and prescribed fire in wildland fire management – namely that a policy of complete suppression of all naturally or human-ignited wildland fires by definition excludes even the judicious use of prescribed fires on the same units of land. This is not the case. Just because a policy mandates the suppression of all wildland fires on a given unit or units of land does not mean that prescribed fire cannot be employed by fire managers on the same unit(s) for the purpose(s) of hazard fuel reduction or habitat management.

1.5 IMPACT TOPICS INCLUDED IN EA

Impact topics are derived from issues raised during internal and external scoping, that is, from park staff and public scoping. Not every conceivable impact of a proposed action is substantive enough to warrant analysis. The following topics, however, do merit consideration in this EA:

Geology and Soils: Preservation of its unique geologic landforms is included in the purpose and significance statements for Sleeping Bear Dunes National Lakeshore. Soils can potentially be adversely affected by intense fires as well as by suppression activities. Therefore, impacts to soils and geology are analyzed in this EA.

Water Resources: NPS policies require protection of water resources consistent with the Federal Clean Water Act. The presence of Lake Michigan and a number of smaller lakes with a total of more than 1,000 acres (400 hectares) in and adjacent to the park lends water resources a particular importance at the Lakeshore. Both fires and fire suppression efforts can adversely affect water resources by exposing soils, which leads to erosion during storm events and subsequent suspended solids and turbidity in downstream surface waters. Therefore, impacts to water resources are analyzed in this EA.

Floodplains and Wetlands: Presidential Executive Orders mandate floodplain management and protection of wetlands. Approximately 20 miles (35 km) of streams that contain floodplains traverse the park on the way to Lake Michigan. The Lakeshore also contains about 750 acres (300 hectares) of wetlands, which support considerable biodiversity and certain threatened or endangered species. Fires and to a lesser extent fire suppression activities can influence floodplains and wetlands, and therefore impacts to both are analyzed in this EA.

Air Quality: The 1973 Federal Clean Air Act stipulates that federal agencies have an affirmative responsibility to protect a park's air quality from adverse air pollution impacts. Sleeping Bear Dunes National Lakeshore is located in a Class II area and generally enjoys good air quality and visibility. All types of fires generate smoke and particulate matter, which can

impinge on air quality in the park and surrounding area and communities to some extent. Therefore, impacts to air quality are included in this analysis.

Vegetation: The Lakeshore's vegetation communities include pine woodlands, oak and aspen woodlands, beech-maple hardwoods, cedar swamps, bogs, interdunal swales, fallow farm fields, and meadows. A stand of old-growth white cedars is found on South Manitou Island. Forests and all vegetation communities are heavily influenced by fire regimes. Therefore, this EA will consider the impacts of the proposed FMP alternatives on the park's vegetation.

Wildlife and Fisheries: The park contains many wildlife species. Wildland fires have pronounced effects on wildlife habitat, and thus indirectly on wildlife populations. Therefore, impacts of the FMP alternatives on wildlife and fisheries are evaluated in this EA.

Threatened and Endangered Species: The Federal Endangered Species Act prohibits harm to any species of fauna or flora listed by the U. S. Fish and Wildlife Service (USFWS) as being either threatened or endangered. Such harm includes not only direct injury or mortality, but also disruption of the habitat on which these species depend. Section 7 of the Act also requires all federal agencies to consult with the Fish and Wildlife Service when any activity they permit, fund, or conduct may affect a listed species or designated critical habitat, or is likely to jeopardize proposed species or adversely modify proposed critical habitat. The park offers sanctuary to the federal endangered piping plover and Michigan monkey-flower, as well as the federal threatened bald eagle and Pitcher's thistle, in addition to two dozen or more species listed by the State of Michigan. Since these species depend on habitat conditions that may be influenced by fire or fire exclusion, this EA considers the effect of the FMP on threatened and endangered species known to occur in the park.

Wilderness: The 1964 Wilderness Act states that wilderness, "in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain." This statute established a National Wilderness Preservation System; designated areas in that system are to be left unimpaired for future use and enjoyment. Five areas of Sleeping Bear Dunes National Lakeshore, totaling approximately 30,000 acres (12,000 hectares) on both the mainland and islands – almost half the park's area – have been found to qualify for formal congressional designation as wilderness. These areas must be managed as wilderness pending future congressional action. Since both fires and fire suppression impact wilderness values, the impact of the proposed FMP alternatives on wilderness will be analyzed in this EA.

Noise: Noise is defined as unwanted sound. Fuel reduction, prescribed burns and fire suppression efforts can all involve the use of noise-generating mechanical tools and devices with engines, such as chain saws, trucks, helicopters, and airplanes. All of these devices, in particular helicopters and chain saws at close range, are quite loud (in excess of 100 decibels). NPS management policies call for the preservation of, "to the greatest extent possible, the natural soundscapes of parks" (NPS, 2000; Section 4.9). Furthermore, with approximately 40% of the park proposed for wilderness designation, and managed so as not to impair its wilderness qualities, the Lakeshore must consider potential impacts of motorized equipment to the character,

esthetics, and traditions of wilderness (NPS, 2000; Section 6.3.4.3). Therefore, noise is addressed in this EA.

Cultural Resources: Section 106 of the National Historic Preservation Act of 1966 provides the framework for federal review and protection of cultural resources, and ensures that they are considered during federal project planning and execution. Cultural resources at Sleeping Bear include historic structures, cultural landscapes, and archeological resources. Within the areas affected by this plan are nearly 400 historic buildings, numerous cultural landscape features, prehistoric and historic archeological sites, and a large potential for



Figure 3 – Historic building at Sleeping Bear Dunes National Lakeshore

ethnographic resources. These cultural resources can be affected both by fire itself and fire suppression activities. Thus, potential impacts to cultural resources will be addressed in this EA.

Land Use: The developed communities of Glen Arbor and Empire border the park. In addition, a number of inholdings and properties developed with cottages, homes, and other structures are located in the park or in close proximity to it. Thus, the Lakeshore has an extensive wildland-urban interface, a condition that is a particular issue for fire managers. Adjacent land uses include recreational resort, low-density rural residential, agricultural and some forestry. More developed land uses in particular may be at risk from fire, and be affected differently by different fire management approaches; hence the need to address land use impacts in this document.

Human Health and Safety: Fires can be extremely hazardous, even life-threatening, to humans, and current federal fire management policies emphasize that firefighter and public safety is the first priority; all FMPs must reflect this commitment (NIFC, 1998). Therefore, impacts to human health and safety are addressed in this EA.

Public Services: Some kinds of projects or programs can interfere with or add to the burden on public services like police, municipal fire-fighting, emergency medical, and search and rescue. Since fires and fire-fighting can potentially involve police, fire, and emergency services, and concern was expressed during scoping about overtaxing local fire departments, this topic is addressed in the EA.

Park Facilities and Operations: Severe fires can potentially affect operations at national parks, especially in more developed sites like visitor centers, campgrounds, administrative and maintenance facilities. These impacts can occur directly from the threat to facilities of an approaching fire, and more indirectly from smoke and the diversion of personnel to firefighting. Fires have occasionally caused closures of facilities in parks around the country. Thus, the potential effects of the FMP alternatives on park operations will be considered in this EA.

Visitor Use and Experience: The 1916 NPS Organic Act directs the Service to provide for public enjoyment of the scenery, wildlife and natural and historic resources of national parks, "in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations." P.L. 91-479, which established Sleeping Bear Dunes National Lakeshore in 1970, directed the Secretary of the Interior to provide for, "recreational opportunities consistent with the maximum protection of the natural environment…" The Lakeshore's purpose statement further calls for park management to contribute to the "benefit, inspiration, education, recreation and enjoyment of the public." Therefore, the potential impacts of the proposed FMP on visitor use and experience are addressed in this EA.

1.6 IMPACT TOPICS CONSIDERED BUT DROPPED FROM FURTHER ANALYSIS

NEPA and the CEQ Regulations direct agencies to "avoid useless bulk...and concentrate effort and attention on important issues" (40 CFR 1502.15). Analysts must use their professional judgment in deciding which issues warrant consideration and to what extent.

Certain impact topics that are sometimes addressed in NEPA documents on other kinds of proposed actions or projects have been judged to not be substantively affected by any of the FMP alternatives considered in this EA. These topics are listed and briefly described below, and the rationale provided for not considering them in any more detail.

Waste Management: None of the FMP alternatives will generate noteworthy quantities of either hazardous or solid wastes that need to be disposed of in hazardous waste or general sanitary landfills. Therefore this impact topic is dropped from additional consideration.

Transportation: None of the FMP alternatives will substantively affect road, railroad, water-based, or aerial transportation in and around the park. One exception to this general rule is the possible temporary closure of short segments of nearby roads during fire suppression activities or from heavy smoke emanating from wildland fires or prescribed burns. Over the long term, any such closures would be very infrequent and would not significantly impinge on local transportation. Therefore, this topic is dismissed from any further analysis.

Utilities: Some kinds of projects, especially those involving construction, may temporarily impact above and below-ground telephone, electrical, natural gas, water, and sewer lines and cables, potentially disrupting service to customers. Other proposed actions may exert a substantial, long-term demand on telephone, electrical, natural gas, water, and sewage infrastructure, sources, and service, thereby compromising existing service levels or causing a

need for new facilities to be constructed. None of the FMP alternatives will cause any of these effects to any extent. Although wildland fires themselves could cause localized, temporary damage to certain utilities, especially those situated above ground, each of the FMP alternatives aims to protect such structures, and over the long term any damage is expected to be inconsequential. Therefore utilities are eliminated from any additional analysis.

Socioeconomics: NEPA requires an analysis of impacts to the "human environment," which includes economic, social and demographic elements of the affected area. Fire management and firefighting activities may bring a short-term need for additional personnel in the park, but overall this increment would be minimal and would not affect neighboring communities' and counties' overall populations, incomes and employment bases (Census, 2002a; Census, 2002b). Therefore, this impact topic is not included for further analysis in this EA.

Environmental Justice / Protection of Children: Presidential Executive Order 12898 requires federal agencies to identify and address disproportionate impacts of their programs, policies and activities on minority and low-income populations. Benzie and Leelanau counties have neither minority nor low-income populations substantially greater than the state of Michigan as a whole (Census, 2002a; Census, 2002b). Moreover, none of the alternatives would result in disproportionate health or environmental effects on minorities or low-income populations as defined in the Environmental Protection Agency's Environmental Justice Guidance; therefore this topic is not further addressed in this EA. Executive Order 13045 requires federal actions and policies to identify and address disproportionately adverse risks to the health and safety of children. Since none of the fire management alternatives involves disproportionate risks to the well-being of children, this topic is also excluded from further analysis.



Figure 4 – View along Pierce Stocking Scenic Drive